

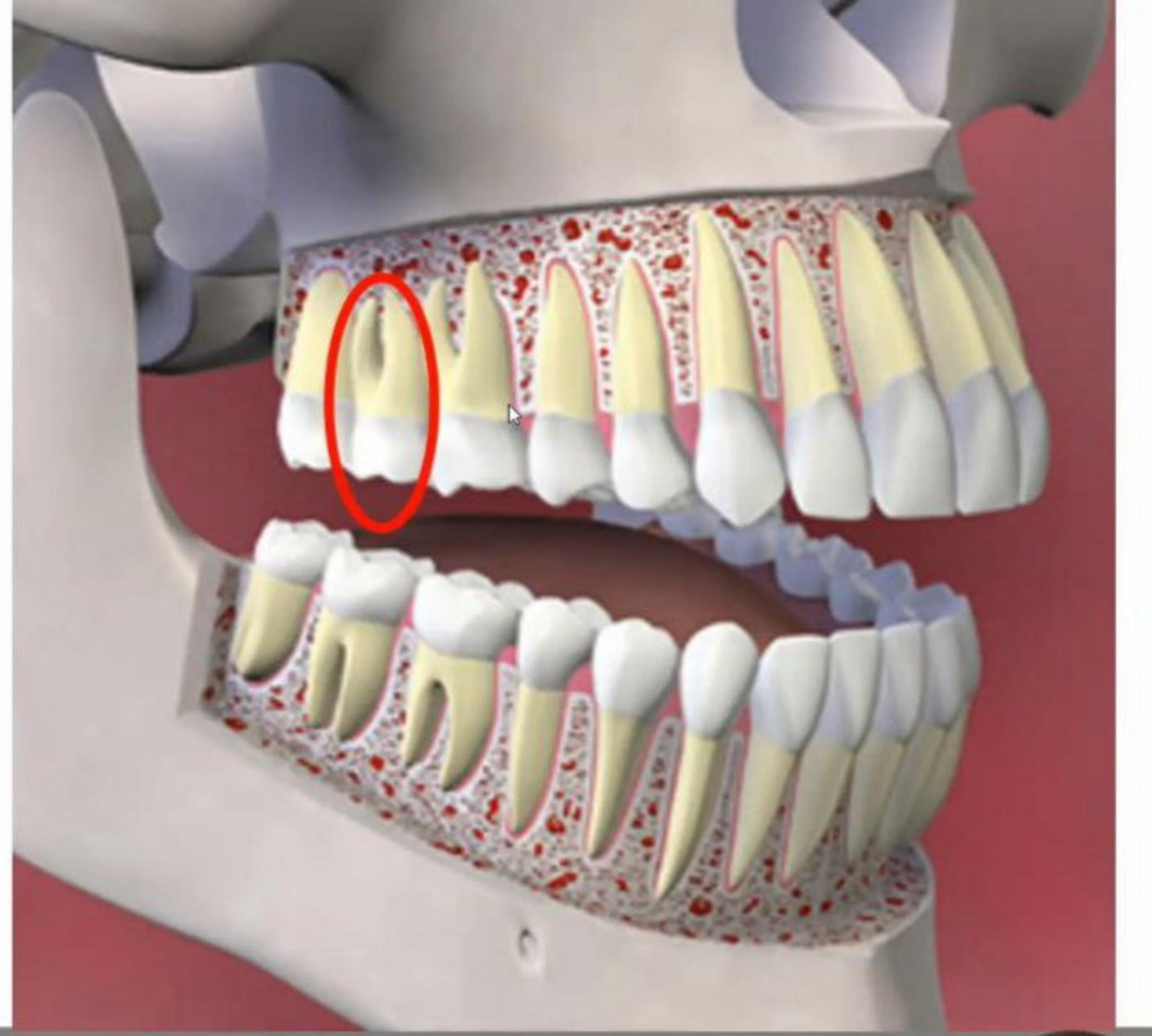
Dental Anatomy Lec

12 & 13

Permanent Maxillary 2nd & 3rd Molar

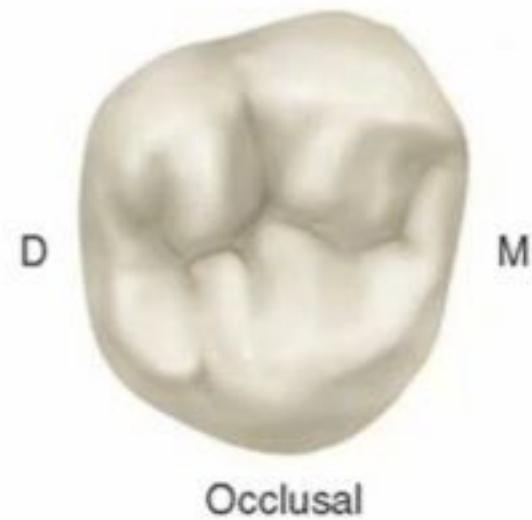


Maxillary 2nd molar:



Maxillary 2nd molar:

- No fifth cusp “cusp of Carabelli” is evident.
- Roots are **less divergent** and may be coalescent (joined together).

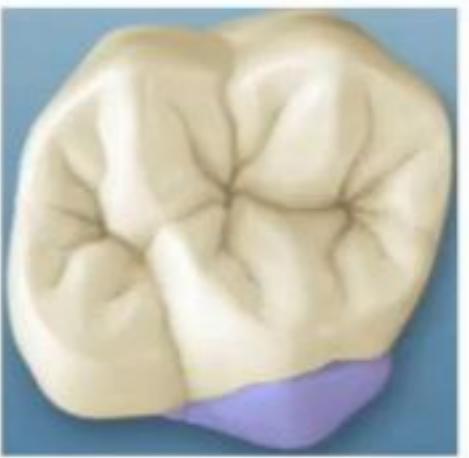
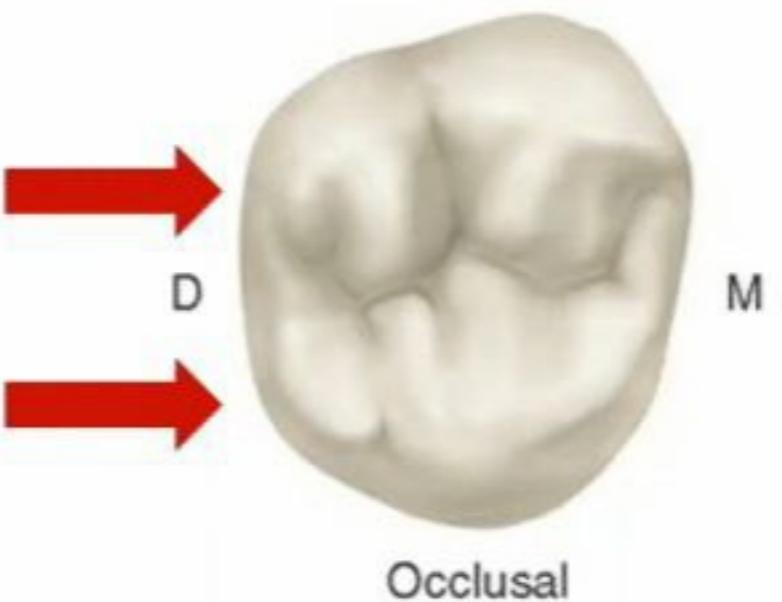


Upper 7



Maxillary 2nd molar:

- Both distal cusps (distobuccal and distolingual cusps) are less developed.
- The crown is smaller in overall dimensions than the maxillary first molar.



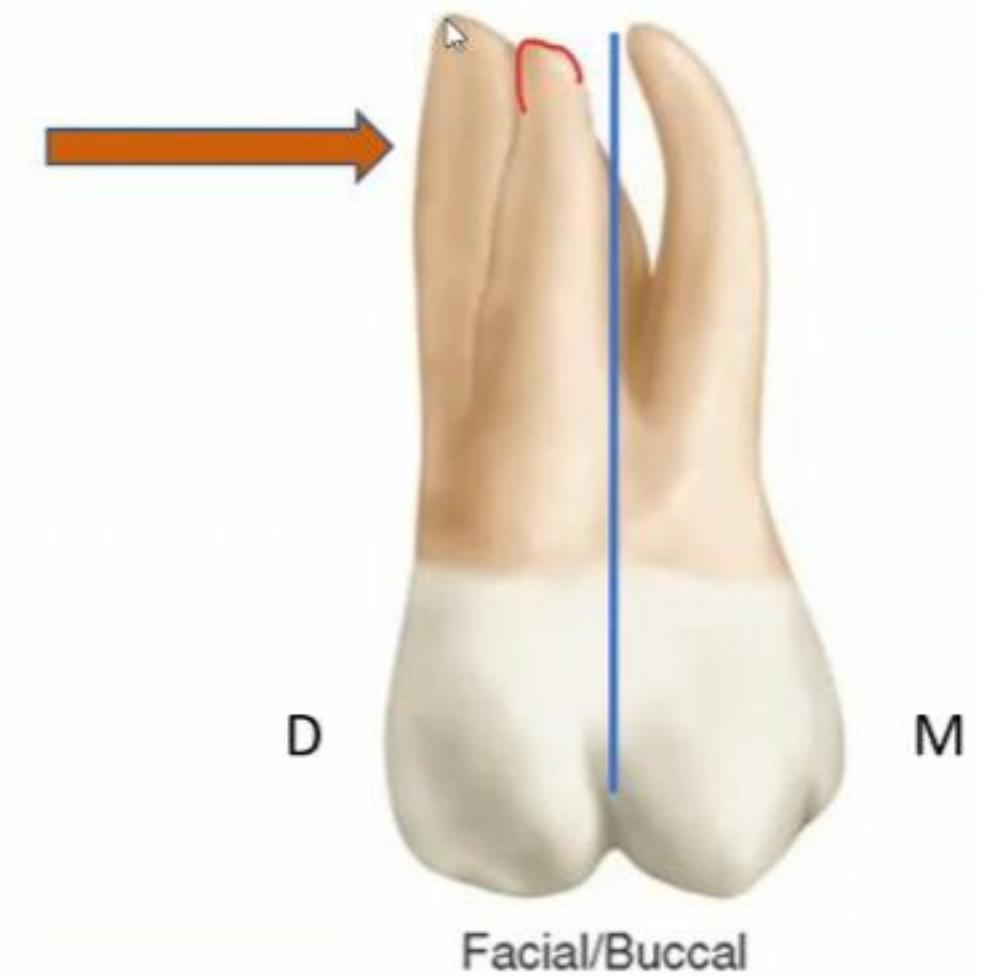
Buccal Aspect

1. The crown is a little shorter cervico-occlusally (**about 0.5mm**) and narrower mesio-distally than the maxillary first molar.
2. The **distobuccal cusp is smaller** and allows part of the distal marginal ridge and part of the distolingual cusp to be seen.



Buccal Aspect

3. The buccal roots are about the **same length**. They are more nearly parallel and are inclined **distally** more than those of maxillary first molar. So, the end of the distobuccal root is slightly distal to the distal extremity of the crown and the apex of mesiobuccal root is on a line with the buccal groove of the crown instead of the tip of the mesiobuccal cusp as in the maxillary first molar.



4. The **palatal root** is the longest root (1mm longer than the buccal roots).



Lingual Aspect

1. The **distolingual cusp** is smaller than that in the maxillary first molar.
2. Part of the **distobuccal cusp** may be seen mesial to the distolingual cusp.
3. No **fifth cusp** is evident.
4. The **apex of the lingual root (palatal root)** is in line with the distolingual cusp tip instead of the lingual groove as was found in the maxillary first molar.



Mesial Aspect

1. The buccolingual dimension is the same as that of the maxillary first molar, but the crown **length** is **less**.
2. The roots are **less divergent** buccolingually than those of the maxillary first molar, being within the confines of the crown.



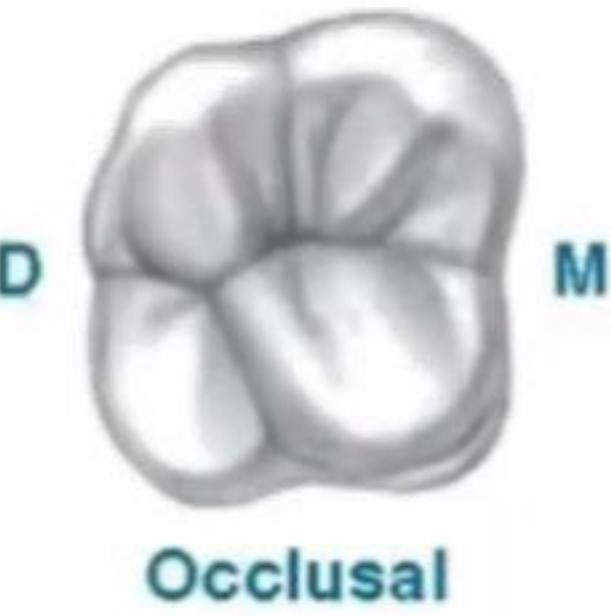
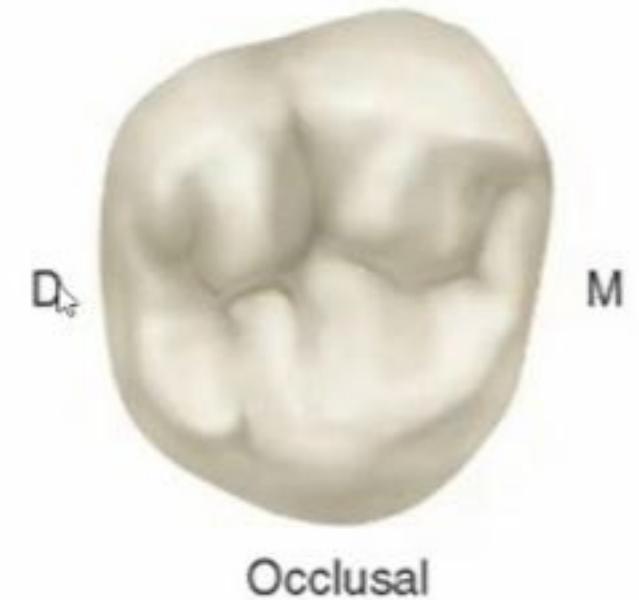
Distal Aspect

Because the distobuccal cusp is smaller than in the maxillary first molar (i.e. more smaller in comparison to the mesiobuccal cusp), more of the **mesiobuccal** cusp may be seen from this aspect.



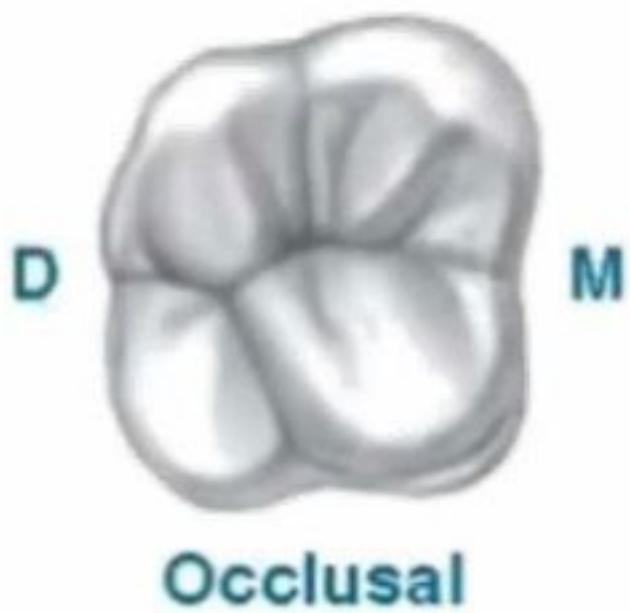
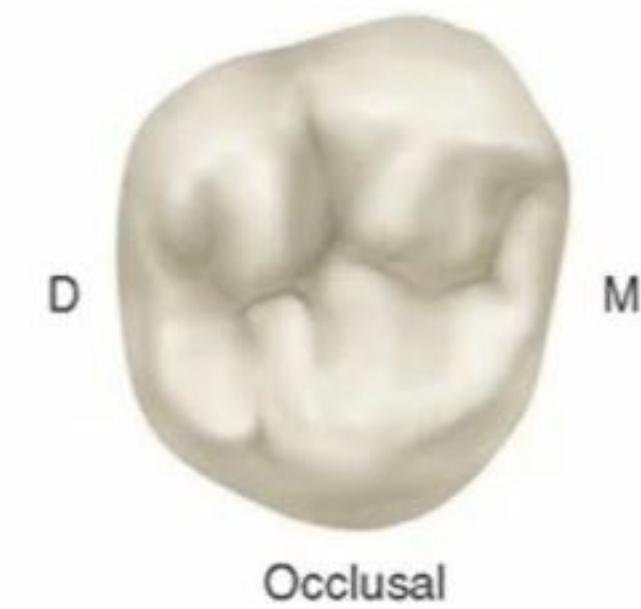
Occlusal Aspect

1. The **rhomboidal shape** of the occlusal aspect is more visible. In comparison with the maxillary first molar, the acute angles of the rhomboid are less and the obtuse angles are more.
2. The buccolingual diameter is the same as in maxillary first molar, but the **mesiodistal diameter is approximately 1mm less**.



Occlusal Aspect

3. The **distal cusps** (distobuccal and distolingual cusps) are smaller and less developed than those in the maxillary first molar.



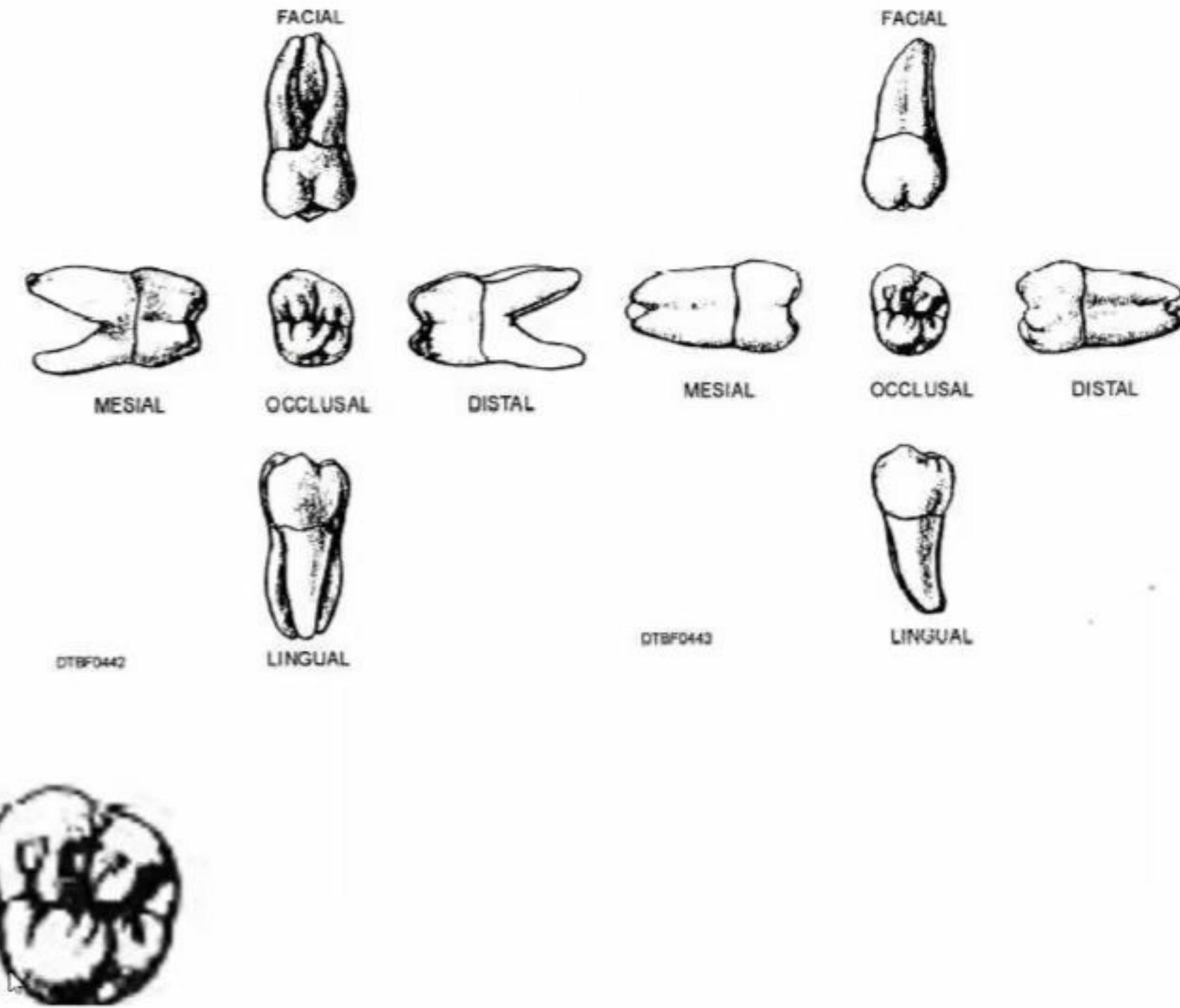
4. No fifth cusp.

5. It is not uncommon to find more supplemental grooves as well as pits on the occlusal surface than are usually found on the maxillary first molar.



Maxillary 3rd molar:

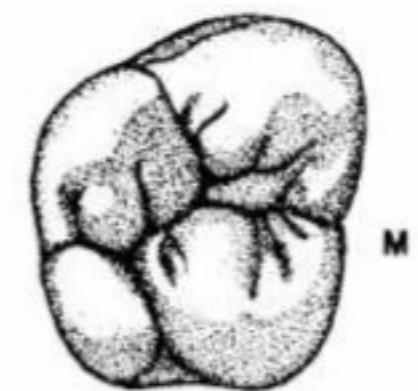
1. It is the **smallest** maxillary molar tooth.
2. **Triangular** occlusal outline, the distolingual cusp is very small and poorly developed and it may be absent.
3. The **roots** are shorter, convergent, often fused, and usually are three in number.
4. The **mesiolingual cusp** is the largest cusp



Maxillary 3rd molar:

5. It may have many variations:

- a) Heart shaped type with three cusps (most common type).
- b) Rhomboidal shaped type with four cusps.
- c) One cusp type occlusally (peg shaped).
- d) Congenitally missing.



OCCLUSAL
(Heart Shaped)



OCCLUSAL
(Rhomboidal)

